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IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF OREGON

PORTLAND DIVISION

UNITED STATES OF AMERICA,

Plaintiff,

v.

ODELL TONY ADAMS,

Defendant.

Case No. 3:19-cr-00009-MO

MOTION FOR *DAUBERT* HEARING REGARDING ADMISSIBILITY OF TOOLMARK COMPARISON EVIDENCE AND TO EXCLUDE OR LIMIT PROPOSED EXPERT TESTIMONY

Oral Argument Requested

Odell Tony Adams, by and through his attorneys, Samuel C. Kauffman, pursuant to FRE 702, hereby request a *Daubert* hearing to determine the admissibility or limitations of the government's proposed expert testimony regarding shell casing comparison and analysis and the expert's purported conclusion that shell casings collected from the Speakeasy Lounge scene were fired from a .40 caliber S & W Taurus semi-automatic pistol seized from a home connected to Mr. Adams. If the government is unable to establish the requisite relevance and reliability pursuant to FRE 702 and *Daubert*, the Court should exclude or substantially limit the proposed expert testimony.

Background:

The government indicated in its Expert Witness Summaries (ECF No. 53) that it intends to call as a witness at trial, Travis Gover, Forensic Scientist, Oregon State Police Forensic Laboratory. *Id.* at 2. According to the government's summary:

> He will explain the examination, testing, analysis, and comparisons he conducted on the evidence collected in this case. He will describe and explain the techniques and methods used to test fire rounds from the 40 S&W caliber Taurus semi-automatic pistol seized in this case. He will explain how he analyzed shell casings from the scene to shell casings from the test fire, and concluded that the ones submitted from the scene were fired from the same gun seized from defendant's residence. He

> will also testify how his examination and testing of the Taurus semi-automatic pistol led him to conclude that it is an operable firearm.

Id.

The government included Mr. Gover's "analytical report" with its summary in which Mr. Gover described his findings as follows pursuant to his "examination and microscopic comparison":

> POSITIVE: Agreement of a combination of individual characteristic and all discernible class characteristics where the extent of the agreement exceeds that which can occur in the comparison of toolmarks made by different tools and is consistent with the agreement demonstrated by toolmarks known to have been produced by the same tool.

ECF 53-2 at 6. Although the government included copies of the microscopic images purportedly used by Mr. Gover in making his comparison, Mr. Gover does not describe the specific methodology or criteria he used in making the comparisons, nor does he give any description at all for the basis of his conclusion that the shell casing found at the scene were fired by the Taurus pistol. *Id*. at 7.

In addition, the government previously disclosed in discovery that the Portland Police Bureau had submitted the request to OSP Forensic Lab only after first requesting a re-test of the shell casings from ATF's National Integrated Ballistic Information Network (NIBIN). On November 6, 2018, Portland Police

Bureau Officer Colby Panter reported that after he had submitted the casing images to NIBIN, he heard back from NIBIN that "the NIBIN reports indicate the casings recovered from the shooting scene were not fired by either .40 caliber handgun found at 4313 N. Kirby Ave." Exhibit 3, p. 1.

On February 6, 2019, Detective Michael Jones, reported that he "learned that there was possibly an error…" in the first NIBIN comparison and therefore resubmitted the same shell casing images to NIBIN. Exhibit 3, p. 7. The government has not disclosed the nature of the purported "error" or why Detective Jones believed that re-examining the same images might yield a different result. Nevertheless, NIBIN reported back that they had found a presumptive match. After he obtained a presumptive match from NIBIN, Detective Jones then submitted the shell casing to OSP Forensic Lab and received the above confirmation from Mr. Gover.

Legal Standard:

As an initial matter, the admissibility of expert opinion testimony is governed by Federal Rules of Evidence 702, which codified the Supreme Court's decision in *Daubert v. Merrell Dow Pharmaceuticals, Inc*., 509 U.S. 579 (1993), and its progeny. Rule 702 states:

> If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence, or to determine a fact on issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

It is the duty of the trial court to ensure that any expert testimony admitted "rests on a reliable foundation and is relevant to the task at hand." *Daubert*, 509 U.S. at 597. As the proponent of the expert, the government bears the burden of proof. *United States v. Reyes Vera*, 770 F.3d 1232, 1243 (9th Cir. 2014).

In *Daubert*, the Supreme Court set out a non-exhaustive set of factors that trial courts may consider in determining whether proposed expert testimony is based on reliable methods and principles: (1) whether the particular theory can be and has been tested; (2) whether the theory has been subjected to peer review and publication; (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; and (5) whether the technique has achieved general acceptance in the relevant scientific or expert community. 509 U.S. at 593–94.

For most of the twentieth century, courts generally allowed firearm examiners to testify, without many restrictions, that a bullet found at the scene of a

crime was fired from a particular gun. *See*, *United States v. Romero-Lobato*, No. 3:18-cr-00049-LRH-CBC, 2019 U.S. Dist. LEXIS 80881, at *6 (D. Nev. May 13, 2019) citing David H. Kaye, *Firearm-Mark Evidence: Looking Back and Looking Ahead*, 68 CASE W. RES. L. REV. 723, 725-26 (2018).

However, applying the *Daubert* factors, courts have increasingly placed substantial restrictions limiting the discretion of firearm experts to testify regarding their conclusions, noting, among other things, the subjective nature of the conclusions and the inability to articulate a rate of error. *Id.* at *8. A number of such cases followed several published scientific reports that questioned the reliability of toolmark comparison methodology.

First, in 2008, the National Research Council ("NRC") observed that studies of the uniqueness, reproducibility, and permanence of individual characteristics of toolmarks are "limited in scale and have been conducted by firearms examiners (and examiners in training) in state and local law enforcement laboratories as adjuncts to their regular casework," and concluded that "the validity of the fundamental assumptions of uniqueness and reproducibility of firearms-related toolmarks has not yet been fully demonstrated." NRC, *Ballistic Imaging* 81

(National Academies Press 2008). Second, in 2009, the NRC issued a report raising significant questions about the state of firearm and toolmark analysis:

> A fundamental problem with toolmark and firearms analysis is the lack of a precisely defined process. As noted above, AFTE [Association of Firearm and Tool Mark Examiners] has adopted a theory of identification, but it does not provide a specific protocol ... This AFTE document, which is the best guidance available for the field of toolmark identification, does not even consider, let alone address, questions regarding variability, reliability, repeatability, or the number of correlations needed to achieve a given degree of confidence.

Exhibit 2: NRC Committee on Identifying the Needs of the Forensic Sciences Community, *Strengthening Forensic Science in the United States: A Path Forward* 155 (2009).

Since the issuance of these two reports, federal courts, which once routinely admitted firearm and toolmark identification evidence, have approached such testimony with more caution, limiting the scope of expert testimony. Courts have recently remarked that "[p]ro-prosecution bias might affect the reliability of firearms examinations because the 'field consists entirely of individuals who work for law enforcement agencies,' " *United States v. Green*, 405 F. Supp. 2d 104, 109 n.7 (D. Mass. 2005), and that the reliability of toolmark identification is questionable because it is not possible to calculate an absolute error rate." *United States v. Monteiro*, 407 F. Supp. 2d 351, 367 (D. Mass. 2006). Many of these

courts admitted the proffered testimony only under a limiting instruction restricting the degree of certainty to which firearm and toolmark identification specialists may express their identifications. *See United States v. Cazares*, 788 F.3d 956, 989 (9th Cir. 2015) ("reasonable degree of ballistic certainty"); *United States v. Diaz,* No. CR 05-00167 WHA, 2007 U.S. Dist. LEXIS 13152, at *11-12 (N.D. Cal. Feb 12, 2007) (same); *see also Monteiro*, 407 F. Supp. 2d at 355 (same); *United States v. Taylor*, 663 F. Supp. 2d 1170 (D.N.M. 2009) ("reasonable degree of certainty in the firearms examination field"); *United States v. Glynn*, 578 F. Supp. 2d 567, 572 (S.D.N.Y. 2008) ("more likely than not").

Finally, third, in 2016, PCAST issued a report identifying additional steps that should be taken "beyond those already taken ... in the aftermath of the highly critical 2009 National Research Council report on the state of the forensic sciences, that could help ensure the validity of forensic evidence used in the Nation's legal system." PCAST, *Report to the President Forensic Science in Criminal Cases: Ensuring Scientific Validity of Feature-Comparison Methods* p. x (Sept. 2016). The report expressed several concerns, including that AFTE's "Theory of Identification as it Relates to Toolmarks" is circular:

> The "theory" [of the criteria for making an identification] states that an examiner may conclude that two items have a common origin if their

> marks are in "sufficient agreement," where "sufficient agreement" is defined as the examiner being convinced that the items are extremely unlikely to have a different origin.

Exhibit 1: *Id*. at 104.

The PCAST Report concluded that because firearms analysis is presently a subjective feature-comparison method, its foundational validity can only be established through multiple independent black box studies. *Id*. at 109–111. Many past studies and tests involved designs "that are not appropriate for assessing the scientific validity or estimating the reliability of the method as practiced." *Id*. Comparison of past studies and those conducted more recently "suggests that, because of their design, many frequently cited studies seriously underestimate the false positive rate." *Id*.

Since the publication of the PCAST Report, trial courts, although allowing the testimony, have become even more cautious. For example, in *United States v. Davis*, No.: 4:18-cr-00011, 2019 U.S. Dist. LEXIS 155037 *26-27; (WD Virginia Sept. 11, 2019), following a *Daubert* hearing and a review of the published studies held that the government's experts:

> MAY:
> - Provide testimony explaining their examination procedure and describe the comparison micrographs accompanying the reports produced in discovery;

- Describe any similar characteristics in the toolmarks observed on examined cartridge cases;
- Based on these observations, render an opinion as to whether toolmarks on certain cartridge cases bear marks consistent with each other.

MAY NOT:

- Opine that certain cartridge cases were fired by the same gun;
- Opine that a cartridge case is a "match" to other cartridge cases or firearms;
- Opine that toolmarks reflect a "signature" permitting the conclusion that certain cartridge cases may be traced to a single firearm; or
- Express confidence in their opinions to any specific level of certainty, including whether the examiners' observations exclude other firearms or cartridge cases "to a level of practical impossibility."

In *United States v. Tibbs*, after an exhaustive analysis of the caselaw and published studies and application of the *Daubert* factors, the Court held that "in light of the inability of the published studies to establish an error rate, the absence of an objective standard for identification, and the lack of general acceptance of the foundational validity of the field outside of the community of practitioners within the field," the government's expert would be limited to testimony that the "recovered firearm cannot be excluded as the source of the cartridge casing found on the scene of the alleged shooting." No. 2016 CF119431, 2019 D.C. Super. Lexis 9 at *81 (Sept. 5, 2019).

Conclusion

Although in past practice, courts have routinely allowed expert testimony regarding the identification and comparison of shell casings using toolmarks, the reliability of such subjective comparisons has recently been substantially questioned by published academic studies and by courts applying the *Daubert* factors. Accordingly, this Court should likewise hold a *Daubert* hearing at which the government will be required to establish in detail the methodology of its proposed expert and the reliability of his proposed conclusions. Because of the questionable reliability and subjective nature of the proposed evidence, the Court should exclude or substantially limit such testimony.

Respectfully submitted this 12th day of November, 2019,

/s/ Samuel C. Kauffman
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Attorneys for Odell Adams